

Photo Release

SPACE SYSTEMS

Airbus adds extra precision to Sentinel-3 satellite altimetry

Airbus' microwave radiometer instrument will provide added precision by correcting for inaccuracies created by water vapour in the atmosphere

Madrid, 19/04/2018 - A new highly precise MicroWave Radiometer (MWR) built by Airbus is ready to start operations after the launch of the Sentinel-3B satellite built by Thales Alenia Space as prime contractor for this program. It is one of the essential instruments of the Sentinel-3 spacecraft, measuring atmospheric humidity as supplementary information for tropospheric path correction of the altimeter signal. In addition, MWR data is useful to measure surface emissivity and soil moisture over land, surface energy budget investigations which support atmospheric studies and for ice characterization.

These corrected measurements along with a digital elevation mode help the radar altimeter to work in SAR (Synthetic Aperture Radar) mode, which is much more precise and provides much better spatial resolution along the track.

The data produced will allow scientists to monitor sea-level changes, sea-surface temperature, manage water quality, and track marine pollution and biological productivity. It will also provide a land-monitoring service with wildfire detection, land-cover mapping and vegetation health monitoring. This will provide complementary data to the Sentinel-2 multispectral optical mission.

Airbus is also responsible for the Sentinel-3 spacecraft's thermal architecture, which will ensure the correct performance during the extreme temperature variations the satellite will be subjected to in orbit, and for the cryo-cooler system of the Sea and Land Surface Temperature Radiometer (SLSTR) instrument.

Sentinel-3 is the Copernicus operational wide-swath medium resolution ocean and land mission. It is designed to providing continuity to optical and altimetry data of the Airbus built Envisat mission, as well as the vegetation data of ERS and SPOT missions. This will ensure the long-term collection and operational delivery of high-quality measurements for ocean, land and atmospheric services.

Sentinel-3B, about the size and weight of a small car, is designed for an operating life of seven years, like its twin satellite Sentinel-3A launched 2 years ago. Its MWR is currently working in nominal and stable conditions after a successful in orbit verification phase.

Photo Release

About Airbus

Airbus is a global leader in aeronautics, space and related services. In 2017 it generated reported revenues of € 67 billion – or € 59 billion restated for IFRS 15 - and employed a workforce of around 129,000. Airbus offers the most comprehensive range of passenger airliners from 100 to more than 600 seats. Airbus is also a European leader providing tanker, combat, transport and mission aircraft, as well as one of the world's leading space companies. In helicopters, Airbus provides the most efficient civil and military rotorcraft solutions worldwide.

Media contacts

Ralph Heinrich	+49 (0)171 30 49 751	ralph.heinrich@airbus.com
Jeremy Close	+44 (0)7766 536 572	jeremy.close@airbus.com
Guilhem Boltz	+33 (0)6 34 78 14 08	guilhem.g.boltz@airbus.com
Francisco Lechón	+34 630 196 993	francisco.lechon@airbus.com